



Creating Ideas Applying Values

STRUCT GEOTECH RESEARCH LABORATORIES (P) LTD



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SGRL//BBMP/YSD/2014-15/295

01.06.2014

To
The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bangalore Mahanagara Palike
Bangalore

Sir,

Sub: Quality Control Tests on materials for the work of Construction of RCC drain at 11th cross of Mutyalanagara in ward No.17.

Ref: 1. W.O. No. EE/QC/Div-2/PR/324/11-12, dt. 18.03.2013
2. Letter no. NO/AEE/YPRSD/AE/307-1/2013-14, dt:15.05.2014

With reference to the above cited subject, herewith we are submitting the reports pertaining to 40mm aggregate, 20mm aggregate, sand, cement test reports. Kindly acknowledge the same upon receipt of Test reports.

This is for your kind information.

Thanking you

Yours faithfully

For Struct Geotech Research Laboratories Private Limited


Authorized Signature



STRUCT GEOTECH RESEARCH LABORATORIES PVT LTD.,

NABL ACCREDITED ISO / IEC 17025: 2005 LABORATORY



CERTIFICATE NO. T-1507

Report No.: SGRL / CM / 924/ 14 - 15

20.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/307-1/2013-14, dt:15.05.2014

Job Reference * : EE/QC/Div-2/PR/324/11-12, dated 18.03.2013

CSR No. : CM 300, dt: 20.05.2014

Name of the work* : Construction of RCC drain at 11th cross of Mutyanagara in ward no.17

Contractor* : Mr. G. Vasu

Source of Sample : Sample supplied of TPIA

Sample Id* : 11th cross of Mutyanagara in ward no.17 – PCC 1:4:8 Concrete for Drain bed & wall work

Date of receipt : 20.05.2014

Date of testing : 20.05.2014

Type of sample : Coarse Aggregate - 40mm and down size

Name of test : Sieve Analysis

IS Sieve Designation	Cumulative Percent Passing		Test Method
	Test Result	Requirement as per Table – 1000-1 of MoRT&H	
63.00 mm	100	100	IS: 2386 (Part 1) - 1963
40.00 mm	96.95	95 - 100	
20.00 mm	37.89	30 - 70	
10.00 mm	24.18	10 - 35	
4.75 mm	3.68	0 - 5	

For Struct Geotech Research Laboratories Pvt. Ltd.,

Authorized Signature
B. Venkata Subramanyam
Quality Manager



Note: (i) The Results relate only to the items tested (ii) This test report should not be reproduced except in full, without written approval of this laboratory (iii) Any corrections invalidates this report (iv) Any Query regarding the report must be reported immediately

*Information as furnished by TPIA



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CERTIFICATE NO. T-1507

Report No.: SGRL / CM /925/ 14 - 15

20.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/307-1/2013-14, dt:15.05.2014

Job Reference * : EE/QC/Div-2/PR/324/11-12, dated 18.03.2013

CSR No : CM 300, dt: 20.05.2014

Name of the work* : Construction of RCC drain at 11th cross of Mutylanagara in ward no.17

Contractor* : Mr. G. Vasu

Source of Sample : Sample supplied of TPIA

Sample Id* : 11th cross of Mutylanagara in ward no.17 – M20 Concrete for Drain bed & wall work

Date of receipt : 20.05.2014

Date of testing : 20.05.2014

Type of sample : Coarse Aggregate - 20mm and down size

Name of test : Sieve Analysis

IS Sieve Designation	Cumulative Percent Passing		Test Method
	Test Result	Requirement as per Table – 1000-1 of MoRT&H	
40.00 mm	100	100	IS: 2386 (Part 1) - 1963
20.00 mm	96.50	95-100	
10.00 mm	26.93	25-55	
4.75 mm	1.93	0-10	

For Struct Geotech Research Laboratories Pvt. Ltd.,


Authorized Signature

V. Venkatesh Subramanyam
Executive Director

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Page 1 of 1



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CERTIFICATE NO. T-1507

Report No.: SGRL / CM /926/ 14 - 15

20.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/307-1/2013-14, dt:15.05.2014

Job Reference* : EE/QC/Div-2/PR/324/11-12,dated 18.03.2013

CSR No. : CM 300, dt: 20.05.2014

Name of the Project* : Construction of RCC drain at 11th cross of Mutylanagara in ward no.17

Contractor* : Mr. G. Vasu

Source of Sample : Sample supplied of TPIA

Sample ID* : 11th cross of Mutylanagara in ward no.17 – PCC 1:4:8 & M20
Concrete for Drain bed & wall work

Type of Sample : Sand

Name of Test : Sieve Analysis

Date of Receipt : 20.05.2014

Date of Testing : 20.05.2014

Test Method : IS : 2386 (Part 1) 1963

Sl. No.	Sieve Size (mm)	Weight Retained	% Weight Retained	Cumulative % of Weight Retained	% of Weight Passing	Specifications as Per MoRT&H
1	10	0.00	0.00	0.00	100.00	100.00
2	4.75	12.48	2.50	2.50	97.50	90-100
3	2.36	28.95	5.79	8.29	91.71	75-100
4	1.18	128.74	25.75	34.03	65.97	55-90
5	0.60	143.56	28.71	62.75	37.25	35-59
6	0.30	122.56	24.51	87.26	12.74	8-30
7	0.15	59.99	12.00	99.26	0.74	0-10

The Sand tested conforms to Zone II as per MoRT& H (Fourth Revision)
For Struct Geotech Research Laboratories Private Limited


Authorised Signature

D. Venkatesh Subramanyam
Executive Director

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***Information as furnished by the TPIA**



Page 1 of 1



Creating More Applying Values

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CERTIFICATE NO. T-1507

Report No.: SGRL / CM / 927 / 14-15

31.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/307-1/2013-14, dt:15.05.2014

Job Reference * : EE/QC/Div-2/PR/324/11-12, dated 18.03.2013

CSR No : CM 300, dt: 20.05.2014

Name of the work* : Construction of RCC drain at 11th cross of Mutyanagara in ward no.17

Contractor* : Mr. G. Vasu

Source of Sample : Sample supplied of TPIA

Sample Id* : 11th cross of Mutyanagara in ward no.17 – PCC 1:4:8 & M20 Concrete for Drain bed & wall work

Date of receipt : 20.05.2014

Date of testing : 20.05.2014 to 31.05.2014

Type of Sample : Cement

Type of Cement*: OPC **Grade of Cement***: 53 **Brand***: Birla Super

Sl. No.	Description	Test Result	Requirements as per IS: 12269-1987	Test Method
1.	Setting Time			
	a) Initial Setting Time	190 min	Min.30 min	IS 4031 (Part V)
	b) Final Setting Time	420 min	Max.600 min	
2.	Standard Consistency	29.0 %	-	IS: 4031 (Part IV)
3.	Compressive Strength (i) 3 days (72 ± 1h) (average of three results)	28.0 N/mm ²	Not less than 27 N/mm ²	IS: 4031 (Part VI)

For Struct Geotech Research Laboratories Pvt. Ltd.,

Authorized Signature

B. Vinod Subramanyam
Executive Director

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Page 1 of 1



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CERTIFICATE NO. T-1507

Report No.: SGRL / CM / 928 / 14-15

31.05.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura Sub Division
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client Reference* : AEE/YPRSD/AE/307-1/2013-14, dt:15.05.2014

Job Reference* : EE/QC/Div-2/PR/324/11-12, dt: 18.03.2013

CSR No. : CM 300, dt: 20.05.2014

Name of the Work* : Construction of RCC drain at 11th cross of Mutyanagara in ward no.17

Contractor* : Mr. G. Vasu

Source of sample : Sample supplied of TPIA

Sample ID* : 11th cross of Mutyanagara in ward no.17 - for road side drain work

Grade of Concrete* : CC 1:2:4

Date of Receipt : 20.05.2014

Date of Testing : 31.05.2014

Name Test : Concrete Core Compressive Strength of precast solid concrete kerb stone

Technical : IS : 516 - 1959, SP - 24 : 1983

Sl. No.	Identification*	Core Details				H / D ratio	Correction factor for H/D	Failure Load (kN)	Core Strength (N/mm ²)	Corrected Core Strength for Diameter (N/mm ²)	Corrected Cylinder Compressive Strength (N/mm ²)	Equivalent Cube Compressive Strength (N/mm ²)
		Dia, D (mm)	Height, H (mm)	Weight (kg)	Density (kg/m ³)							
1	CM 300-e ₁	74.0	139.20	1.38	2306.3	1.88	0.99	58.0	13.49	14.57	14.38	17.98
2	CM 300-e ₂	74.0	140.30	1.41	2337.9	1.90	0.99	58.0	13.49	14.57	14.41	18.01
3	CM 300-e ₃	74.0	140.32	1.42	2354.2	1.90	0.99	60.0	13.96	15.08	14.91	18.63

Correction factor : from Fig. 1 of IS: 516 - 1959

Core Strength : Failure Load / Cross sectional area of Core

Corrected Core Strength for Diameter : 1.08 x Core Strength

Corrected Cylinder Compressive Strength : Corrected Core Strength x Correction factor

Equivalent Cube Compressive Strength : 1.25 x Corrected Cylinder Compressive Strength

For Struct Geotech Research Laboratories Private Limited


Authorized Signature

B. Venkata Subramanyam
Executive Director

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* Information as furnished by TPIA

**** end of the test report ****





Report No.: SGRL/CM/1503/14-15

08.07.2014

TEST REPORT

Client* : The Assistant Executive Engineer
Yeshwanthpura sub division
commercial complex 2nd floor, Yeshwanthpura
Bruhath Bengaluru Mahanagara Palike
Bangalore

Client's Reference* : AEE/YPRSD/AE/3071/2013-14, dt:15.05.2014

Job Reference* : EE/QC/Div-2/PR/324/11-12, dt: 18.03.2013

CSR No : CM 493 dt. 08.07.2014

Name of the Work* : Construction of RCC drain at 11th cross of Mutyalanagara in ward no 17

Contractor* : Mr. Vasu. G

Source of Sample : Sample Supplied of TPIA

Sample ID* : 11th cross of Mutyalanagara in ward no. 17 - Mutyalamma Temple

No. of Cubes Tested : 6 No's

Date of Receipt : 08.07.2014

Age of Specimen : 28 days

Grade of Concrete* : M20

Test Method : IS:516-1959

Sl. No.	Specimen ID*	Date of Casting*	Date of Testing*	Dimension of Specimen(mm)			Weight of Cube (kg)	Failure Load (kN)	Compressive Strength (N/mm ²)
				L	B	H			
1	CM493 - d1	10.06.2014	08.07.2014	150.30	x 150.20	x 150.00	8.000	460	20.38
2	CM493 - d2	10.06.2014	08.07.2014	150.40	x 150.20	x 150.00	7.980	475	21.03
3	CM493 - d3	10.06.2014	08.07.2014	150.20	x 150.30	x 150.20	7.940	470	20.82
4	CM493 - d4	10.06.2014	08.07.2014	150.30	x 150.20	x 150.20	8.120	480	21.26
5	CM493 - d5	10.06.2014	08.07.2014	150.40	x 150.30	x 150.00	7.930	470	20.79
6	CM493 - d6	10.06.2014	08.07.2014	150.50	x 150.10	x 150.10	7.990	490	21.69

For Struct Geotech Research Laboratories

Authorised Signature

B. VENKATA SUBRAMANYAM
Executive Director

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